Art Unit 1808 Paper No. 21

Appeal No. 93-3239 MTC

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HEARD:
October 12, 1993

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte Jean-Marc Payrat,
Claes F. Hogman, Jack DeBrauwere
and Jean M. Mathias

Application for Patent filed November 7, 1990, Serial No. 610,478. Red Blood Cell Storage Solution.

Robert M. Barrett et al. for Appellants.

Supervisory Primary Examiner - Douglas W. Robinson.
Examiner - S. Saucier.

Before Seidleck, Tarring and Emery, Administrative Patent Judges.

Seidleck, Administrative Patent Judge.

This appeal involves claims 1, 3-22 and 36. Claims 23-35, the only other claims remaining in the case, stand withdrawn from consideration under the provisions of 37 CFR 1.142.

A copy of illustrative claims 1 and 9 is attached to this opinion as an appendix.

CASE F-4066 US
DKT. DATE 3-28-94 SEEN BY ATTY. BRB
FINAL DATE 3-28-94 RESP. SENT BRB
SUBJECT Request for Reconsideration

CASE F-4066 US
DKT. DATE 4-28-94 SEEN BY ATTY. BRB
FINAL DATE 4-28-94 RESP. SENT BRB
SUBJECT Fwd Appeal w/ CAFC

The examiner has relied upon the following references in his answer:

Deindoerfer et al. (Deindoerfer)	3,874,384	Apr. 1, 1975
Walker et al. (Walker)	4,572,899	Feb. 25, 1986

Meryman et al. (Meryman), *Transfusion*, Vol. 26, No. 6, "Prolonged Storage Of Red Cells At 40°C," pp. 500-505, 1986.

At the outset we note that the appealed claims have been separately argued as two groups. More particularly, claims 1, 3-8 and 18-22 have been argued as one group while claims 9-17 and 36, drawn to an aqueous red blood cell storage medium comprising two distinct solutions, are separately argued as a second group. The examiner, notwithstanding the statement appearing at the top of page 2 of the answer, appears to recognize that the claims have been argued as two separate groups in view of the fact that he has advanced a separate rejection as to the claims of the second group. We note, however, that appellants have not separately argued the claims in each of the aforementioned groups. As such, the claims in each of the groups are deemed to stand or fall together. In treating the examiner's rejections, we will thus limit our discussion to claims 1 and 36 which appear to be the broadest claims of the first and second groups respectively.

Claims 1, 3-8 and 18-22 stand rejected under 35 USC §103 as unpatentable over Meryman in view of Walker.

We shall sustain this rejection.

Claim 1, in essence, is directed to a sodium chloride-free aqueous red blood cell storage solution, for use with an anticoagulant containing less than or equal to 50% citrate as compared to a typical CPD solution, having a pH of approximately 7.4 and an osmolarity of less than 300 mOsm/1 and comprising sodium citrate, sodium biphosphate, sodium phosphate dibasic, adenine and mannitol.

Meryman, as correctly observed by the examiner, discloses sodium chloride-free red blood cell storage solutions having a pH of 7.1 and an osmolarity of 210 mOsm containing a citrate, a monophosphate, a diphosphate, adenine, mannitol and dextrose. We note that appellants have not put into issue the accuracy of the examiner's analysis of the Meryman reference.

The claimed composition, more particularly the composition of claim 1, differs, if at all, from the red blood cell storage solution taught by Meryman, only in the pH of the solution and by virtue of the fact Meryman teaches potassium salts whereas the present claims are drawn to sodium salts, note the examiner's analysis of the differences between the claimed solutions (claim 1) and those taught by Meryman at the top of page 4 of his answer. However, we agree with the examiner that the salts and pH values taught by Meryman render the claimed pH value of "approximately 7.4" and the use of sodium salts *prima facie* obvious.

More particularly, we agree with the examiner's position, as set forth at page 4 of his answer, that it is conventional to utilize the sodium and potassium salt forms interchangeably in the preparation of aqueous solutions. We also note that appellants apparently acquiesce in the examiner's determination since they have not presented any arguments to the contrary.

With respect to the pH of the solution, we are satisfied that the determination of an optimum pH level amounts to nothing more than routine experimentation well within the ordinary skill of the art. Further, the recitation "a pH of approximately 7.4" is, in our opinion, broad enough to include the 7.1 pH taught by Meryman. ***In re Ayers***, 154 F.2d 182, 69 USPQ 109 (CCPA 1946) and *Ex parte Bachlott*, 1961 C.D. 100. Still further, the recited pH value of "approximately 7.4" is so close to that of the 7.1 value taught by Meryman as to be rendered obvious thereby. ***Titanium Metals Corp. of America v. Banner***, 778 F.2d 687, 227 USPQ 773 (Fed. Cir. 1985). ***In re Kirsch***, 498 F.2d 1389, 182 USPQ 286 (CCPA 1974).

Appellants argue that Meryman does not render the claimed aqueous solutions *prima facie* obvious since there is nothing in the reference which teaches or suggests that the aqueous solutions described therein are useful in conjunction with an anticoagulant containing less than or equal to 50%

citrate as compared to a typical CPD solution. However, this argument is not convincing of error in the examiner's position since it is well settled that terms merely setting forth an intended use for, or a property inherent in, an otherwise old composition, do not differentiate the claimed composition from those known in the prior art. *In re Pearson*, 494 F.2d 1399, 181 USPQ 641 (CCPA 1974). *In re Lemin*, 326 F.2d 437, 140 USPQ 273 (CCPA 1964). Further, there is no evidence in the record establishing that the aqueous red blood storage solutions taught by Meryman are not capable of being used in conjunction with an anticoagulant containing less than 50% citrate as compared to typical CPD solutions.

Appellants argue that their red blood cell storage solutions must differ from those of Meryman by virtue of the fact that, unlike Meryman, washing of the red blood prior to storage is unnecessary. This argument does not convince us of error in the examiner's position.

We initially note the absence of any specific teaching in the instant specification to the effect that the claimed solutions are advantageous over those of the prior art since they eliminate the need to wash the blood cells prior to storage. The reliance upon advantages not disclosed in the specification is contrary to prevailing patent jurisprudence. *In re Davies*, 475

F.2d 667, 177 USPQ 381 (CCPA 1973); *In re Slocombe*, 510 F.2d 1398, 184 USPQ 740 (CCPA 1975).

Further, we fail to see where the presence or absence of a washing step during use provides adequate support from appellants' contention that the broadly claimed solutions are materially different from those taught by Meryman. Since the claimed solutions and those of Meryman comprise essentially the same materials, it is reasonable to expect that they possess essentially the same properties. We find no persuasive objective evidence in the record to the contrary.

Claims 9-17 and 36 stand rejected under 35 USC §103 as unpatentable over the combined teachings of Meryman, Walker and Deindoerfer. We shall sustain this rejection for the reasons set forth by the examiner.

Claim 36 differs from claim 1 by virtue of the fact that the solution is claimed as a two part aqueous red blood cell storage solution, one part including the phosphates, adenine and mannitol and the second part containing the sugar such as fructose or dextrose.

As pointed out by the examiner at pages 5, 6 and 8 of his answer, Deindoerfer clearly teaches dividing blood cell storage solutions into two parts, one part containing the sugar and the second part containing adenine, citrate, etc. Patentee also points out that it is advantageous to so divide the blood

storage solutions in order to stabilize the components of the storage medium. These teachings in Deindoerfer would, in our opinion, provide ample motivation for dividing the solutions of Meryman into two parts with one of the parts containing the sugar. The results achieved herein by initially maintaining the sugar solution as a separate part are those ordinarily expected from the teachings in Deindoerfer.

The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a). See the final rule notice, 54 F.R. 29548 (July 13, 1989), 1105 O.G. 5 (August 1, 1989).

AFFIRMED.

James A. Seidleck)
Administrative Patent Judge)
)
)
Henry W. Tarring, II) BOARD OF PATENT
Administrative Patent Judge) APPEALS
) AND
) INTERFERENCES
Stephen J. Emery)
Administrative Patent Judge)

Hill, Van Santen, Steadman & Simpson
A Professional Corporation
85th Floor - Sears Tower
Chicago, IL 60606

APPENDIX

1. An aqueous red blood cell storage solution for maintaining 2,3-BPG and for use with an anticoagulant containing less than or equal to 50% citrate as compared to a typical CPD solution comprising sodium citrate, sodium biphosphate, sodium phosphate dibasic, adenine, and mannitol but not including sodium chloride, and having a pH of approximately 7.4 and an osmolarity of less than 300 mOsm/l.

9. An aqueous red blood cell storage solution for maintaining 2,3-BPG and for use with an anticoagulant containing less than or equal to 50% citrate as compared to a typical CPD solution comprising a first distinct solution and a second distinct solution wherein neither solution includes sodium chloride, and wherein:

the first solution includes in millimolar concentration (mmol/l) approximately 20 mmol/l to about 140 mmol/l of at least one sugar chosen from the group consisting of dextrose and fructose;

the second solution includes in millimolar concentrations;

approximately 1 mmol/l to about 2.2 mmol/l adenine;

approximately 20 mmol/l to about 110 mmol/l mannitol;

approximately 2.2 mmol/l to about 90 mmol/l sodium citrate;

approximately 1 mmol/l to about 10 mmol/l sodium biphosphat :

approximately 5 mmol/l to about 25 mmol/l sodium phosphate dibasic; and

approximately 0 mmol/l to about 2 mmol/l guanosine.